## ASHRAE JOURNAL EDITORIAL INDEX FOR 1972 VOLUME 14

Names of authors appear in bold; subject classifications in bold capitals

	No.	Page	,	No.	Pag
A			BOOK OF FUNDAMENTALS & Equipment Volume of		
ARA ACURATI Condine of Manhantin in ACURAT			GUIDE AND DATA BOOK	7-	- 5
A&A—ASHRAE's Guardians of Membership in ASHRAE,		- 62	ASHRAE Financial Statements 1971-72	12-	- 6
J.A. Endweiss, Jr.	8-	- 02	ASHRAE Intersociety Representatives—1971-72	3-	- 6
Achenbach, P.R., R&T 1971-72—A Year of Operational		- 75	ASHRAE Investments, W.P. Chapman	2-	- 5
Improvements	0-	- /3	ASHRAE Meetings: Your Investment in Acquiring Knowl-		
AIR CONDITIONING			edge, W.F. Spiegel	4	- 5
Central Plant Chilled Water Systems—Pumping & Flow			ASHRAE 1972 Annual Meeting, Nassau, Bahamas, June 25-		
Balance, G.F. Carlson			29		
Part I	2_	- 27	First ASHRAE Offshore Meeting Held in Nossau		_ 2
Part II		- 46	Nassau '72 And the Living is Easy	-	- 6
Part III		- 42	Pre-Register Now for Nassau Meeting		- 5
Chiller Noise: Its Impact on Building Design, W.E.		7.	'Put a Little Something Back,' R. Hardy	8-	_ 2
Blazier, Jr.	5_	- 44	'Put a Little Something Back' Keynotes 1972 Annual		
Computer Analysis of Smoke Control with Building Air	-	-	Meeting	6-	- 3
Handling Systems, G.T. Tamura	8-	- 46	Summaries of Technical Session & Symposium Papers		
Computerized Energy Requirement Analysis & Heating/			& Forums	6-	- 3
Cooling Load Calculations of Buildings, M. Lokmanhe-			ASHRAE 1972 Semiannual Meeting, New Orleans, LA,		
kim & R.H. Henninger	4	- 25	January 24-27		
Controlled Environment—1984, The, W.L. McGrath	6-		ARI-ASHRAE Joint Exposition Policy	1-	- 2
Effect of Oil Circulation on Compressor Capacity, The,		30	Emphasis at ASHRAE-ARI Exposition is on 'Complete		
K.W. Cooper & A.G. Mount	10-	- 39	Line' Display	1-	- 2
Emergence of Environmental Engineering in British Uni-		0,	Exhibitors at International Air-Conditioning, Heating &		
versities, The, D.J. Croome	11-	- 57	Refrigeration Exposition		- 2
Equipment Loads in Laboratories, A.J. deAlbuquerque	9_		Products to be Featured at the Show		- 3
Evaluation of Air-Conditioning Systems for Public		-	New Orleans: Scene of 1972 Semiannual Meeting	3—	- 3
Schools, The, H.H. Phipps			Walt Disney World—A Venture in Community Planning		
Part I	1-	- 39	& Development, W.E. Potter	3-	- 29
Part II		46	ASHRAE 1973 Semiannual Meeting, Chicago, IL, January		
Feasibility of Industrial Air Conditioning, A.T. Spangler		47	28—February 1		
Fire Hazard Characteristics of Duct Materials, E.E. Smith		29	Chicago—January 1973: ASHRAE Semiannual Meeting	12-	- 37
Heat Recovery, Energy Conservation & Pollution Control			Summaries of Yechnical Session & Symposium Papers &		
at the Hunts Point Project, S.W. Brown	12-	29	Forums		- 38
HVAC Compartment Concept, R.T. Tamblyn		27	ASHRAE Officers, Directors, Committeemen, Staff		- 70
Introductory Approach to the Rating of Air-Conditioning					- 74
Systems, A. Greenberg	8-	35			- 72
Investigation of Electric Space Conditioning for Mobile		••	ASHRAE Region & Chapter Officers (1971-72)		- 78
Homes, An, E.R. Ambrose & J.L. Reynolds	11-	46	ASHRAE Region & Chapter Officers (1972-73)		- 72
Methods of Selecting & Rating Fans, J.B. Graham	1—		ASHRAE Research Projects 1972-73, R.S. Buchanan		- 55
New ASHRAE Comfort Chart, The, R.G. Nevins & A.P.			ASHRAE Standard Project Committees		- 56
Gagge	5_	41	ASHRAE Technical Committees & Task Groups		- 72
Psychrometric Chart: Proposed Addition, C.S. Datta	7-			10-	- 69
Steam Turbines for Pump & Fan Drives Provide 'Free'	•	00			
Shaft Hp, D. Hail	3_	43			
Technology Pacesetter: 1922—ASHRAE GUIDE AND	•	45			
DATA BOOK—1972, J.H. Cansdale & C.W. MacPhee	5_	35	_		
Thermal Comfort Studies: A Theoretical Assessment,			В		
D.R. Burton	8-	39	Baker, D.W., see S.E. Charm		
Transfer Function Method of Calculating Cooling Loads,	•	0,	Becker, H.P., see D. Rickelton		
Heat Extraction & Space Temperature, G.P. Mitalas	12-	54	Blazier, W.E. Jr., Chiller Noise: Its Impact on Building		
Variable Air Volume, D. Rickelton & H.P. Becker	9-		Design	5-	- 44
Weather Data Related to Evaporative Cooling, L.W.	•	•	Boggs, A.T., III	-	
Crow	6-	60	Here's Your Opinion!	1-	69
Ambrose, E.R., J.L. Reynolds, An Investigation of Electric			Report by Executive Secretary	8-	
Space Conditioning for Mobile Homes	11-	46	Report on Recent Policy Decisions, A.	-	61
SHRAE & the Future, S.F. Gilman	6-		Brand, D.H., see S.E. Charm		01
SHRAE Announces Two New 1972 Publications: HAND-	•	-	Briley, G.C., The R&T Committee & the 'R' in ASHRAE	9	73
TATE TO THE TOP TO THE TATE OF				,	

	No.	Page		No.	Pag
Broadening the Technical Information Base, R.R. Kirkwood		- 58	Computer Analysis of Smoke Control with Building Air		
Brown, S.W., Heat Recovery, Energy Conservation &			Handling Systems, G.T. Tamura		- 4
Pollution Control at the Hunts Point Project		29	Controlled Environment—1984, The, W.L. McGrath		- 50
Buchanan, R.S., ASHRAE Research Projects 1972-73	10-	- 55	Power Crisis—& Building Systems Design, The, S.J. Gage		- 2
BUILDINGS, see CONSTRUCTION			Total Fire Safety System, A. A.W. Innamorati	4-	- 34
			Venture in Community Planning & Development, A,	2	2
Burton, D.R., Thermal Comfort Studies: A Theoretical Assessment		. 39	W.E. Potter	3-	- 2
ment			CONSUMERISM		
			Consumerism-Its Effect on Product Safety, M.W. Jensen	2-	- 39
			Products Liability—Decisions & Trends, M.D. MacArthur		- 53
			Consumerism-Its Effect on Product Safety, M.W. Jensen	2-	- 39
			Continuous Water Vapor Removal System for the Freeze-		
С			Drying Process, A, R. Kumar, C.J. King & S. Lynn	7-	- 38
Cansdale, J.H., see Editor's Comment			Contos, S., Economics of Primary-Secondary Pumping of		
Cansdale, J.H., C.W. MacPhee, Technology Pacesetter:			Modular Heating Plants		- 34
1922—ASHRAE GUIDE AND DATA BOOK—1972	5-	- 35	Controlled Environment—1984, The, W.L. McGrath	6	- 56
Carlson, G.F., Central Plant Chilled Water Systems-Pump-			CONTROLS		
ing & Flow Balance			Centrol Plant Chilled Water Systems-Pumping & Flow		
Part 1	2-	27	Balance, G.F. Carlson		
Part II	3—	46	Part 1	2-	- 27
Part III	4	42	Part II		- 46
Cassing, E.F., Membership & You	2—	58	Part III		42
Central Plant Chilled Water Systems—Pumping & Flow			European Central Heating Technique, F.J. Kuerzel	4-	- 37
Balance, G.F. Carlson			Fluidic Circuits for Measurement & Control, T.J. Lechner	2-	- 40
Part I	_	46	HVAC Compartment Concept, R.T. Tamblyn	10-	- 27
Part II		42	Cooper, K.W., A. G. Mount, The Effect of Oil Circulation		
Challenge of Refrigeration, The, L.C. Nettleship		63	on Compressor Capacity	10—	- 39
Challenges for Compressor Industry' Keynotes Purdue		-	Critical Properties of Halogenated Hydrocarbons: A Cor-	_	
Conference	10-	73	relation, A.L. Horvath	7—	- 46
Chapman, W.P.			Croome, D.J., The Emergence of Environmental Engineer- ing in British Universities	11	- 57
ASHRAE Investments	2-	56	Crow, L.W., Weather Data Related to Evaporative Cooling		60
Treasurer's Report	12-	61	crow, civil, weather bard keraled to craporative cooling	0-	00
Chapter Awards of Excellence Pay Off, W.F. Spiegel	12-	59			
Charm, S.E., D.H. Brand, D.W. Baker, A Simple Method					
for Estimating Freezing & Thawing Times of Cylinders					
& Slabs	11—		D		
Chicago in 1973! ASHRAE Semiannual Meeting	10-		Datta, C.S., Psychrometric Chart: Proposed Addition		36
Chicago—January 1973: ASHRAE Semiannual Meeting	12—	3/	deAlbuquerque, A.J., Equipment Loads in Laboratories	9	59
Chiller Noise: Its Impact on Building Design, W.E. Blazier, Jr.	5—	44	DESIGN		
Colborne, W.G., 'Energy Conservation'—What is ASHRAE	_				
Doing?	8-	60	Evaluation of Air-Conditioning Systems for Public Schools, The, H.H. Phipps		
Collins, W.J., Jr., Research Puts Meaning into ASHRAE			Part 1	1-	39
Objectives	2-	57	Part II		46
			HVAC Compartment Concept, R.T. Tamblyn		27
COMFORT			Introductory Approach to the Rating of Air-Condition-		
Feasibility of Industrial Air Conditioning, A.T. Spangler	10-		ing Systems, A. Greenberg	8-	35
Psychrometric Chart: Proposed Addition, C.S. Datta	7—	36	Variable Air Volume, D. Rickelton & H.P. Becker	9-	31
Thermal Comfort Studies: A Theoretical Assessment,		20	Downs, R.J., H. Hellmers, & P.J. Kramer, Engineering		
D.R. Burton Variable Air Volume, D. Rickelton & H.P. Becker	8— 9—		Problems in the Design & Operation of Phytotrons	6-	47
Weather Data Related to Evaporative Cooling, L.W.	-	31			
Crow	6—	60			
Compressor Technology Conference to be Held at Purdue	-	-			
University—July 25-27, 1972	4-	55	E		
Computer Analysis of Smoke Control with Building Air			ECONOMICS		
Handling Systems, G.T. Tamura	8-	46			
Computerized Energy Requirements Analysis & Heating/			Computerized Energy Requirement Analysis & Heating/		
Cooling Load Calculations of Buildings, M. Lokmanhe-			Cooling Load Calculations of Buildings, M. Lokman-		25
kim & R.H. Henninger	4-	25	hekim & R.H. Henninger Economics of Primary-Secondary Pumping of Modular	4	23
COMPUTERS			Heating Plants, S. Contos	12—	34
			Freezing Foods—The Cost of Quality, C.L. Rasmussen	11-	
Computer Analysis of Smoke Control with Building Air Handling Systems, G.T. Tamura	8-	46	Introductory Approach to the Rating of Air-Conditioning		
Computerized Energy Requirement Analysis & Heating/	0	40	Systems, A. Greenberg	8-	35
Cooling Load Calculations of Buildings, M. Lokmanhe-			Investigation of Electric Space Conditioning for Mobile		
kim & R.H. Henninger	4-	25	Homes, An, E.R. Ambrose & J.L. Reynolds	11-	46
Equipment Loads in Laboratories, A.J. deAlbuquerque		59	Economics of Primary-Secondary Pumping of Modular Heat-		
Investigation of Electric Space Conditioning for Mobile			ing Plants, S. Contos	12	34
Homes, An, E.R. Ambrose & J.L. Reynolds	11-	46			
Transfer Function Method of Calculating Cooling Loads,			EDITOR'S COMMENT, J.H. Cansdale		
Heat Extraction & Space Temperature, G.P. Mitalas	12-	54	No Strings Attached		25
CONSTRUCTION			Resolve and Dol	-	25
			Going International	3-	27
Chiller Noise: Its Impact on Building Design, W.E. Blazier, Jr.	5—	44	Chauvinism or Involvement?	5_	
	3-	44	A Colden Anniversary!		33

	No.	Page		No.	Pag
Communications!	6-	- 31	Evaluation of Air-Conditioning Systems for Public		
Is it Popular to be Anti?		- 23	Schools, The, H.H. Phipps		
The Changing of the Guard!		- 25	Part 1		- 3
'Image'		- 29	Part II		- 4
Posterity and ASHRAE Research	11-	- 25 - 27	Freezing Foods—The Cost of Quality, C.L. Rasmussen Investigation of Electric Space Conditioning for Mobile	11-	- 2
Peace	12-	- 27	Homes, An, E.R. Ambrose & J.L. Reynolds		- 41
EDUCATION			Methods of Selecting & Rating Fans, J.B. Graham MSS Line—A New Approach to the Hunting Problem,		- 4
Emergence of Environmental Engineering in British Uni-			The, Z.R. Huelle	10-	- 4:
versities, The, D.J. Croome	11-	- 57	Occupational Safety & Health Act (OSHA)—How It Af-		
Next Crisis, The, S.F. Gilman		- 40	fects ASHRAE, The, T.H. Rockwell	12-	
Ontario Chapter Report on Education & Manpower Sur-			Products Liability—Decisions & Trends, M.D. MacArthur Psychrometric Chart: Proposed Addition, C.S. Datta		- 53
vey, P.G. Willson Technology Pacesetter: 1922—ASHRAE GUIDE AND	12-	- 64	Prospects of Using Refrigerants for Power Plant Cycles,		- 36
DATA BOOK-1972, J.H. Cansdale & C.W. MacPhee	5-	- 35	L.N. Misra  Steam Turbines for Pump & Fan Drives Provide 'Free'	1-	- 55
Effect of Oil Circulation on Compressor Capacity, The,			Shaft Hp, D. Hail	3-	43
K.W. Cooper & A.G. Mount	10-	- 39	Variable Air Volume, D. Rickelton & H.P. Becker		31
Emergence of Environmental Engineering in British Uni-			Equipment Loads in Laboratories, A.J. deAlbuquerque	9-	. 59
versities, The, D.J. Croome	11	- 57	Estimating Temperatures of Foods during Various Heating		
Endweiss, J.A., Jr., A&A—ASHRAE's Guardians of Mem- bership in ASHRAE	8—	62	or Cooling Treatments, K. Hayakawa European Central Heating Technique, F.J. Kuerzel		65
ENERGY CONSERVATION			Evaluation of Air-Conditioning Systems for Public Schools, The, H.H. Phipps		
Energy Conservation—A Technological Challenge, F.A.			Part I	1-	39
Govan	1—	- 68	Part II	2—	46
Heat Recovery, Energy Conservation & Pollution Control at the Hunts Point Project, S.W. Brown	12	29	Expanded Regional Conference in Cincinnati Expected to		
HVAC Compartment Concept, R.T. Tamblyn		27	Attract Large Attendance	7—	55
Next Crisis, The, S.F. Gilman		40			
Power Crisis—& Building Systems Design, The, S.J. Gage	7-	25			
Steam Turbines for Pump & Fan Drives Provide 'Free'					
Shaft Hp, D. Hail	3—	43			
Variable Air Volume, D. Rickelton & H.P. Becker	9—	31	A CORNEL DE LA CONTRACTOR DEL CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR		
Energy Conservation—A Technological Challenge, F.A.			Faust, F.H., Report on Refrigeration & Air-Conditioning		
Govan  Energy Conservation'—What is ASHRAE Doing? W.G.	1—	68	Seminar in Yugoslavia	11—	
Colborne	8-	60	Feldman, C.L., see R.P. Kokernak		
Engineering Problems in the Design & Operation of Phy-			Fire Hazard Characteristics of Duct Materials, E.E. Smith	7—	29
totrons, R.J. Downs, H. Heilmers & P.J. Kramer	6—	47	FIRE SAFETY		
ENGINEERING PROFESSION					
Controlled Environment—1984, The, W.L. McGrath	4-	56	Computer Analysis of Smoke Control with Building Air Handling Systems, G.T. Tamura		46
Next Crisis, The, S.F. Gilman		40	Fire Hazard Characteristics of Duct Materials, E.E. Smith		29
Occupational Safety & Health Act (OSHA)—How It Af-			HVAC Compartment Concept, R.T. Tamblyn	10-	
fects ASHRAE, The, T.H. Rockwell	12-	55,-	Introductory Approach to the Rating of Air-Condition-		
Products Liability—Decisions & Trends, M.D. MacArthur	1-	53	ing Systems, A. Greenberg	8-	35
Technology Pacesetter: 1922—ASHRAE GUIDE AND			Total Fire Safety System, A. A.W. Innamorati	4-	
DATA BOOK—1972, J.H. Cansdale & C.W. MacPhee	5—	35	First ASHRAE Offshore Meeting Held in Nassau	8—	29
ENVIRONMENT			Flagg, L.F., New ASHRAE HANDBOOK & Product Direc-		
Controlled Environment—1984, The, W.L. McGrath	6-	54	tory Announced	10-	-
Emergence of Environmental Engineering in British Uni-	0_	30	Fluidic Circuits for Measurement & Control, T.J. Lechner	2-	40
versities, The, D.J. Croome	11-	57	FOOD PRESERVATION		
'Put a Little Something Back,' R. Hardy	8-	27	Continuous Water Vapor Removal System for the Freeze-		
EQUIPMENT			Drying Process, A, R. Kumar, C.J. King & S. Lynn	7—	38
			Estimating Temperatures of Foods during Various Heat-		-
Central Plant Chilled Water Systems—Pumping & Flow			ing or Cooling Treatments, K. Hayakawa	9-	65
Balance, G.F. Carlson			Freezing Foods—The Cost of Quality, C.L. Rasmussen	11-	29
Part II	2—		Heat Recovery, Energy Conservation & Pollution Control		
Part III	3—		at the Hunts Point Project, S.W. Brown	12-	29
Chiller Noise: Its Impact on Building Design, W.E.	-	42	Quality Aspects of Refrigerated & Frozen Fishery Prod-		-
Blazier, Jr.	5	44	ucts, R.R. Pedraja Simple Method for Estimating Freezing & Thawing Times	11-	32
Computerized Energy Requirement Analysis & Heating/ Cooling Load Calculations of Buildings, M. Lokman-			of Cylinders & Slabs, S.E. Charm, D.H. Brand & D.W.		•
hekim & R.H. Henninger	4-	25	Baker		39
Continuous Water Vapor Removal System for the Freeze-			Food Refrigeration in the '80's, W.J. Stadelman	5—	59
Drying Process, A, R. Kumar, C.J. King & S. Lynn	7—	38	FREEZING, see FOOD PRESERVATION		
Controlled Environment—1984, The, W.L. McGrath	6-	56	Freezing Foods—The Cost of Quality, C.L. Rasmussen	11—	29
Economics of Primary-Secondary Pumping of Modular			and the same of th		
Heating Plants, S. Contos	12—	34			
Effect of Oil Circulation on Compressor Capacity, The,	10	20			
K.W. Cooper & A.G. Mount	10-	39	G		
Engineering Problems in the Design & Operation of Phy- totrons, R.J. Downs, H. Hellmers & P.J. Kramer	6-	47	Gage, S.J., The Power Crisis—& Building Systems Design	7—	25
Equipment Loads in Laboratories, A.J. deAlbuquerque			Gagge, A.P., see R.G. Nevins	,_	43
European Central Heating Technique, F.J. Kuerzel	4-		Gilkey, H.T.		

	No.	Page		No.	. Pag
Meeting the Challenge of Change	7-	- 51			
Planning a Bigger Future for ASHRAE Research	3-	- 60	ILLUMINATION		
Gilman, S.F., see Involvement Is Gilman, S.F.			Engineering Problems in the Design & Operation of		
ASHRAE & the Future	6-	- 72	Phytotrons, R.J. Downs, H. Hellmers & P.J. Kramer	6-	_ 4
Next Crisis, The,		- 40	Variable Air Volume, D. Rickelton & H.P. Becker		_ 3
Upgrading Govaн, F.A., Energy Conservation—A Technological Chal-		- 67	Innamorati, A.W., A Total Fire Safety System Introductory Approach to the Rating of Air-Conditioning	3-	<b>—</b> 3
Graham, J.B., Method of Selecting & Rating Fans	1-	- 68 - 46	Systems, A. Greenberg	8-	- 3
Greenberg, A., Introductory Approach to the Rating of	-	- 40	Investigation of Electric Space Conditioning for Mobile Homes, E.R. Ambrose & J.L. Reynolds	11.	_ 46
Air-Conditioning Systems	8-	35			
			INVOLVEMENT IS, S.F. Gilman		- 77 - 61
					- 67
				4-	- 65
н					- 63
Hall, D., Steam Turbines for Pump & Fan Drives Provide				0-	- 77
'Free' Shaft Hp		43			
Hardy, R., 'Put a Little Something Back'	0	21			
Various Heating or Cooling Treatments	9-	65	Jensen, M.W., Consumerism—Its Effect on Product Safety	2-	- 39
HEALTH, see PSYCHROMETRICS					
Heat Recovery, Energy Conservation & Pollution Control					
at the Hunts Point Project, S.W. Brown	12-	29	K		
HEATING			Section Continues and Invariant		
Computerized Energy Requirement Analysis & Heating/			King, C.J., see R. Kumar Kirkwood, R.R., Broadening the Technical Information		
Cooling Load Calculations of Buildings, M. Lokmanhe-			Base	5-	- 58
kim & R.H. Henninger		25	Kokernak, R.P., C.L. Feldman, Velocity of Sound in Two-		
Controlled Environment—1984, The, W.L. McGrath	6-	56	Phase Flow of R12	2—	- 35
Economics of Primary-Secondary Pumping of Modular Heating Plants, S. Contos	12—	34	Kramer, P.J., see R.J. Downs Kuerzel, F.J., European Central Heating Technique	4	- 37
Emergence of Environmental Engineering in British Uni-		•	Kumar, R., C.J. King, S. Lynn, A Continuous Water Vapor		
versities, The, D.J. Croome	11-	57	Removal System for the Freeze-Drying Process	7-	- 38
Energy Conservation—A Technological Challenge, F.A. Govan	,	68			
European Central Heating Technique, F.J. Kuerzel		37			
Investigation of Electric Space Conditioning for Mobile			· ·		
Homes, An, E.R. Ambrose & J.L. Reynolds	11-		L		
Power Crisis—& Building Systems Design, The, S.J. Gage Technology Pacesetter: 1922—ASHRAE GUIDE AND DATA	/-	25	LABORATORY FACILITIES		
BOOK—1972, J.H. Cansdale and C.W. MacPhee	5-	35			
Thermal Comfort Studies: A Theoretical Assessment, D.R.			Engineering Problems in the Design & Operation of Phytotrons, R.J. Downs, H. Hellmers & P.J. Kramer	6-	47
Variable Air Volume, D. Rickelton & H.P. Becker		39	Equipment Loads in Laboratories, A.J. deAlbuquerque		59
	-	31	La Courte, N.A., Status of ASHRAE Standards		61
HEAT RECOVERY			Lechner, T.J., Fluidic Circuits for Measurement & Control LI, C.C., Predicting Critical Temperature of Azeotropes		40
Heat Recovery, Energy Conservation & Pollution Control		20	Logsdon, R.F., The 'T' in ASHRAE R&T Committee	4-	
at the Hunts Point Project, S.W. Brown	12—	29	Lokmanhekim, M., R.H. Henninger, Computerized Energy		
L.N. Misra	1-	55	Requirements Analysis and Heating/Cooling Load Calcu-		25
Variable Air Volume, D. Rickelton & H.P. Becker	9_	31	lations of Buildings	4	25
tellmers, H., see R.J. Downs tenninger, R.H., see M. Lokmanhekim			7,000		
Here's Your Opinion! A.T. Boggs III	1-	69			
tonor Roll: Contributors to ASHRAE Research 1971-72	10-		6		
forwath, A.L., Critical Properties of Halogenated Hydro-	_		M		
tuelle, Z.R., The MSS Line—A New Approach to the	7—	46	MacArthur, M.D., Products Liability—Decisions & Trends	1_	53
Hunting Problem	10—	43	MacPhee, C.W., see J.H. Cansdale	,_	33
HUMIDITY			MAINTENANCE		
Controlled Environment-1984, The, W.L. McGrath	6—	56	Evaluation of Air-Conditioning Systems for Public		
Engineering Problems in the Design & Operation of			Schools, The, H.H. Phipps		
Phytotrons, R.J. Downs, H. Hellmers & P.J. Kramer Feasibility of Industrial Air Conditioning, A.T. Spangler	10—	47	Part I	1-	39 46
Introductory Approach to the Rating of Air-Conditioning			Introductory Approach to the Rating of Air-Conditioning		-0
Systems, A. Greenberg	8—		Systems, A. Greenberg	8-	35
Variable Air Volume, D. Rickelton & H.P. Becker	9-		McGrath, W.L., The Controlled Environment—1984		56
Weather Data Related to Evaporative Cooling, L.W. Crow	6—	60	Meeting the Challenge of Change, H.T. Gilkey  Membership & You, E.F. Cassing	7—	51
HUNTING			Methods of Selecting & Rating Fans, J.B. Graham	-	46
MSS Line—A New Approach to the Hunting Problem,			Misra, L.N., Prospects of Using Refrigerants for Power		
The, Z.R. Huelle	10—		Plant Cycles	1-	55
componission consept, and temporal contraction			Mitalas, G.P., Transfer Function Method of Calculating		

	No.	Page		No.	Pag
Cooling Loads, Heat Extraction & Space Temperature	12-	- 54	munity Planning	3-	- 29
MODULAR			Power Crisis—and Building Systems Design, The, S.J. Gage		- 25
Economics of Primary-Secondary Pumping of Modular			Predicting Critical Temperature of Azeotropes, C.C. Li  Products Liability—Decisions & Trends, M.D. MacArthur		- 51 - 53
Heating Plants, S. Contos	12-	_ 34	Program Finalized for Compressor Technology Conference,		- 55
HVAC Compartment Concept, R.T. Tamblyn	10-	- 27	July 25 to 27		- 74
Mount, A.G., see K.W. Cooper  MSS Line—A New Approach to the Hunting Problem, The,			Proposed Amendments to the Bylaws	4-	- 63
Z.R. Huelle	10-	- 43	Prospects of Using Refrigerants for Power Plant Cycles, L.N. Misra	1-	- 55
Muffly, G., Refrigeration Patent Files Presented to Engi-					-
neering Societies Library	3-	- 55	PSYCHROMETRICS		
			New ASHRAE Comfort Chart, The, R.G. Nevins & A.P. Gagge	-	- 41
			Occupational Safety & Health Act (OSHA)—How It		
			Affects ASHRAE, The, T.H. Rockwell		- 50
· N			Psychrometric Chart: Proposed Addition, C.S. Datta Psychrometric Chart: Proposed Addition, C.S. Datta		36
Nettleship, L.C., The Challenge of Refrigeration	11-	- 63		/-	30
Nevins, R.G., A.P. Gagge, The New ASHRAE Comfort			PUMPING & PIPING		
Chart  New ASHRAE Comfort Chart, The, R.G. Nevins & A.P.	5	- 41	Central Plant Chilled Water Systems—Pumping & Flow		
Gogge	5-	- 41	Balance, G.F. Carlson Part I	2—	. 27
New ASHRAE HANDBOOK & Product Directory Announced,			Part II		46
L.F. Flagg		- 54	Part III	4-	42
Next Crisis, The, S.F. Gilman	4-	40	Chiller Noise: Its Impact on Building Design, W.E. Blazier, Jr.		44
NOISE			Economics of Primary-Secondary Pumping of Modular		**
Chiller Noise: Its Impact on Building Design, W. E.	_		Heating Plants, S. Contos	12-	34
Blazier, Jr.  HVAC Compartment Concept, R.T. Tamblyn	10_	- 44	'Put a Little Something Back' Keynotes 1972 Annual		
Occupational Safety & Health Act (OSHA)—How It	10-	27	Meeting 'Put a Little Something Back,' R. Hardy	8-	33 27
Affects ASHRAE, The, T.H. Rockwell	12-	. 50	, and a second s		
Variable Air Volume, D. Rickelton & H.P. Becker	9	31			
Nominations for ASHRAE Officers, Members of the Board of Directors	4-	. 59			
Notice to Canadian Members of ASHRAE	10-		0		
Nussbaum, O.J., Potential ASHRAE Research: The Cooling					
Tower as a Tool to Fight Pollution	10-	67	Quality Aspects of Refrigerated & Frozen Fishery Products, R.R. Pedraja	11-	32
					-
			QUALITY CONTROL		
			Consumerism—Its Effect on Product Safety, M.W. Jensen Feasibility of Industrial Air Conditioning, A.T. Spangler	10—	39
0			Freezing Foods—The Cost of Quality, C.L. Rasmussen	11-	
Occupational Safety & Health Act (OSHA)—How It Affects			Products Liability—Decisions & Trends, M.D. MacArthur	1	53
ASHRAE, The, T.H. Rockwell	3—	50 59	Quality Aspects of Refrigerated & Frozen Fishery Prod-		22
Olivieri, J.P., Teaching—A Personal Involvement Ontario Chapter Reports on Education & Manpower Survey,	3-	37	ucts, R.R. Pedraja	11—	32
P.G. Willson	12-	64			
'OSHA-How it Affects ASHRAE' to Keynote Fall Confer-					
ence in Cincinnati	9—	63	R		
			R&T Committee & the 'R' in ASHRAE, The, G.C. Briley	9_	73
D.			P.R. Achenbach	6-	75
			Rasmussen, C.L., Freezing Foods—The Cost of Quality	11-	29
Pedraja, R.R., Quality Aspects of Refrigerated & Frozen Fishery Products	11-	32	REFRIGERANTS		
Phipps, H.H., The Evaluation of Air-Conditioning Systems			Continuous Water Vapor Removal System for the Freeze-		
for Public Schools			Drying Process, A, R. Kumar, C.J. King & S. Lynn	7—	38
Port 1	2—	39	Critical Properties of Halogenated Hydrocarbons: A	_	
Port II	2-	40	Effect of Oil Circulation on Compressor Capacity, The,	7—	46
PIPING, see PUMPING			K.W. Cooper & A.G. Mount	10-	39
Planning a Bigger Future for ASHRAE Research, H.T. Gilkey	3—		Freezing Foods—The Cost of Quality, C.L. Rasmussen	11-	29
Plans Finalized for Nassau Meeting	5—	60	Predicting Critical Temperature of Azeotropes, C.C. Li	5—	51
POLLUTION			Prospects of Using Refrigerants for Power Plant Cycles, L.N. Misra	1-	55
Heat Recovery, Energy Conservation & Pollution Control			Velocity of Sound in Two-Phase Flow of R12, R.P. Koker-		
at the Hunts Point Project, S.W. Brown	12—	29	nak & C.L. Feldman	2—	35
Introductory Approach to the Rating of Air-Conditioning Systems, A. Greenberg	8—	35	REFRIGERATION		
Next Crisis, The, S.F. Gilman	4-		Central Plant Chilled Water Systems—Pumping & Flow		
Power Crisis—& Building Systems Design, The, S.J. Gage	7—		Balance, G.F. Carlson		
'Put a Little Something Back,' R. Hardy	8	27	Port I	2—	
Potential ASHRAE Research: The Cooling Tower as a Tool to Fight Pollution, O.J. Nussbaum	10-	67	Part II	3—	
Potter, W.E., Walt Disney World—A Venture in Com-			Continuous Water Vapor Removal System for the Freeze-	_	
ASHRAE JOURNAL December 1972					07
TOTAL SUCRITICE DECEMBER 13/2					97

	No.	Page	5	No.	Pag
Drying Process, A, R. Kumar, C.J. King & S. Lynn	7—	38	Schreiner, J.R., Report: Subcommittee on Research Plan-		
Effect of Oil Circulation on Compressor Capacity, The, K.W. Cooper & A.G. Mount	10—	39	ning Simple Method for Estimating Freezing & Thawing Times of Cylinders & Slabs, S.E. Charm, D.H. Brand & D.W.	12-	- 6
Estimating Temperatures of Foods During Various Heat- ing Or Cooling Treatments, K. Hayakawa	9	65	Baker	11-	- 39
Freezing Foods—The Cost of Quality, C.L. Rasmussen		29	Smith, E.E., Fire Hazard Characteristics of Duct Materials		- 29
Heat Recovery, Energy Conservation & Pollution Control at the Hunts Point Project, S.W. Brown	12-	29	SOCIETY COMMUNICATIONS		
MSS Line—A New Approach to the Hunting Problem,	12-	• *	A&A-ASHRAE's Guardians of Membership in ASHRAE,		
The, Z.R. Huelle	10-	43	J.A. Endweiss, Jr.	8-	- 62
Psychrometric Chart: Proposed Addition, C.S. Datta	7—	36	ASHRAE & the Future, S.F. Gilman	6-	- 72
Quality Aspects of Refrigerated & Frozen Fishery Prod-	11-	22	ASHRAE Announces Two New 1972 Publications: HANDBOOK OF FUNDAMENTALS & Equipment Vol-		
ucts, R.R. Pedraja	11-	32	ume of GUIDE AND DATA BOOK	7-	- 52
cieties Library, G. Muffly	3—	55	ASHRAE Financial Statements 1971-72		62
Simple Method for Estimating Freezing & Thawing Times			ASHRAE Intersociety Representatives—1971-72 Appoint-		
of Cylinders & Slabs, S.E. Charm, D.H. Brand & D.W.	11—	20	ASHRAE Investments, W.P. Chapman		- 64
Baker Technology Pacesetter: 1922—ASHRAE GUIDE AND	1,—	37	ASHRAE Meetings: Your Investment in Acquiring Knowl-	-	. 30
DATA BOOK—1972, J.H. Cansdale & C.W. MacPhee	5—	35	edge, W.F. Spiegel	4-	- 53
Velocity of Sound in Two-Phase Flow of R12, R.P.			ASHRAE Officers, Directors, Committeemen, Staff		- 70
Kokernak and C. L. Feldman	2—	35		11-	74
cieties Library, G. Muffly	3—	55	ASHRAE Region & Chapter Officers (1971-72)		78
Report By Executive Secretary, A.T. Boggs III	8-		ASHRAE Region & Chapter Officers (1972-73)	12-	-
Report on Recent Policy Decisions, A, A.T. Boggs III	5—	61	ASHRAE Research Projects 1972-73, R.S. Buchanan	10-	
Report on Refrigeration & Air-Conditioning Seminar in		47	ASHRAE Standard Projects Committees		56
Yugoslavia, F.H. Faust			ASHRAE Technical Committees & Task Groups	10-	69
Report: Subcommittee on Research Planning, J.R. Schreiner	12-		Broadening the Technical Information Base, R.R. Kirk-		-
			wood		58
RESEARCH			Challenge of Refrigeration, The, L.C. Nettleship 'Challenges for Compressor Industry' Keynotes Purdue	11—	63
ASHRAE Research Projects 1972-73, R.S. Buchanan	10-	55	Conference	10-	73
Continuous Water Vapor Removal System for the Freeze-			Chapter Awards of Excellence Pay Off, W.F. Spiegel	12-	59
Drying Process, A, R. Kumar, C.J. King & S. Lynn	7—	38	Chicago in 1973! ASHRAE Semiannual Meeting	10-	68
Effect of Oil Circulation on Compressor Capacity, The, K.W. Cooper & A.G. Mount	10—	39	Compressor Technology Conference to be Held at Purdue University—July 25-27, 1972		
Energy Conservation—A Technological Challenge, F.A.	10-	3,	Energy Conservation—A Technological Challenge, F.A.	4	55
Govan	1_	68	Govan	1-	68
Energy Conservation'—What Is ASHRAE Doing? W.G.			'Energy Conservation'—What is ASHRAE Doing?, W.G.		
Colborne	8—	60	Colborne Expanded Regional Conference in Cincinnati Expected	8	60
Engineering Problems in the Design and Operation of Phytotrons, R.J. Downs, H. Hellmers & P.J. Kramer	6-	47	to Attract Large Attendance	7—	55
Fire Hazard Characteristics of Duct Materials, E.E. Smith	7—		Food Refrigeration in the '80's, W.J. Stadelman		59
Food Refrigeration in the '80's, W.J. Stadelman	5—		Here's Your Opinion!' A.T. Boggs III		69
Honor Roll: Contributors to ASHRAE Research 1971-72  Meeting the Challenge of Change, H.T. Gilkey	7—	51	Honor Roll: Contributors to ASHRAE Research 1971-72	7—	
MSS Line—A New Approach to the Hunting Problem,	,_	31	Meeting the Challenge of Change, H.T. Gilkey  Membership & You, E.F. Cassing		58
The, Z.R. Huelle	10-	43	Nassau '72' And the Living Is Easy	3—	63
Planning a Bigger Future for ASHRAE Research, H.T.	_		New ASHRAE HANDBOOK & Product Directory An-		
Gilkey  Potential ASHRAE Research: The Cooling Tower as a Tool	3—	60	Nominations for ASHRAE Officers, Members of the	10	54
to Fight Pollution, O.J. Nussbaum	10-	67	Board of Directors	4-	59
Predicting Critical Temperature of Azeotropes, C.C. Li	5—	51	Notice to Canadian Members of ASHRAE	10-	73
R&T Committee & the 'R' in ASHRAE, The, G. C. Briley	9—	73	Ontario Chapter Reports on Education & Manpower		
R&T 1971-72—A Year of Operational Improvements, P.R. Achenbach	6-	75	Survey, P.G. Willson  Planning a Bigger Future for ASHRAE Research, H.T.	12-	64
Refrigeration Patent Files Presented to Engineering So-	•		Gilkey	3—	60
cieties Library, G. Muffly	3—	55	Plans Finalized for Nassau Meeting	5—	60
Report on TC 4.5—Fenestration, J.L. Stewart	11—	66	Potential ASHRAE Research: The Cooling Tower as a Tool		
Report: Subcommittee on Research Planning, J.R. Schreiner	12-	65	to Fight Pollution, O.J. Nussbaum Pre-Register Now for Nassau Meeting	10-	
Research Puts Meaning into ASHRAE Objectives, W.J.		-	Program Finalized for Compressor Technology Confer-	-	50
Collins, Jr.		57	ence, July 25 to 27	6-	74
'T' in ASHRAE R&T Committee, The, R.F. Logsdon	3—	54	Proposed Amendments to the Bylaws	4-	
Technology Pacesetter: 1922—ASHRAE GUIDE AND DATA BOOK—1972, J.H. Cansdale & C.W. MacPhee	5—	35	R&T Committee & the 'R' in ASHRAE, The, G.C. Briley R&T 1971-72—A Year of Operational Improvements.	9-	/3
Velocity of Sound in Two-Phase Flow of R12, R.P. Koker-	-	30	P.R. Achenbach	6—	75
nak & C.L. Feldman		35	Report By Executive Secretary, A.T. Boggs III		59
Weather Data Related to Evaporative Cooling, L.W. Crow	6—	60	Report on Recent Policy Decisions, A, A.T. Boggs	5—	61
Research Puts Meaning into ASHRAE Objectives, W.J. Collins, Jr.	2—	57	Report on Refrigeration & Air-Conditioning Seminar in Yugoslavia, F.H. Faust	11-	67
Reynolds, J.L., see E.R. Ambrose	-		Report on TC 4.5—Fenestration, J.L. Stewart	11-	
Rickelton, D., H.P. Becker, Variable Air Volume	9_	31	Report: Subcommittee on Research Planning, J.R.		
Rockwell, T.H., The Occupational Safety & Health Act	12	**	Schreiner	12-	65
(OSHA)—How It Affects ASHRAE	12-	30	Research Puts Meaning into ASHRAE Objectives, W.J.		

	No. I	age		No.	Pag
Collins, Jr		57	Technology Pacesetter: 1922—ASHRAE GUIDE AND DATA BOOK—1972, J.H. Cansdale & C.W. MacPhee	5-	_ 3:
Spiegel		53	TEMPERATURE		
Successful Fall Conference Held in Cincinnati		48	Estimating Temperatures of Foods During Various Heat-		
'T' in ASHRAE R&T Committee, The, R.F. Logsdon		54	ing or Cooling Treatments, K. Hayakawa	9-	- 6
Teaching—A Personal Involvement, J.P. Olivieri Treasurer's Report, W.P. Chapman		61	Introductory Approach to the Rating of Air-Conditioning Systems, A. Greenberg	8-	- 35
Upgrading, S.F. Gilman	1—	67	New ASHRAE Comfort Chart, The, R.G. Nevins and A.P.		
Society Conference: New Banner or White Flag? W.F. Spiegel	10-	53	Gagge Occupational Safety & Health Act (OSHA)—How It Af-	5-	- 41
Spangler, A.T., Feasibility of Industrial Air Conditioning Spiegel, W.F.	10-	47	fects ASHRAE, The, T.H. Rockwell		_ 50
ASHRAE Meetings: Your Investment in Acquiring Knowledge	4	53	Crow Thermal Comfort Studies: A Theoretical Assessment, D.R.	6-	- 60
Chapter Awards of Excellence Pay Off		55	Burton	8-	- 39
Meeting New Challenges		73	TOTAL ENERGY		
Society Conference: New Banner or White Flag?  Stadelman, W.J., Food Refrigeration in the '80's		53 59	Power Crisis—and Building Systems Design, The, S.J.		
•		-	Gage	7-	- 25
STANDARDS	4-	56	Steam Turbines for Pump & Fan Drives Provide 'Free'	2	- 43
ASHRAE Standard Project Committees	4-	30	Shaft Hp, D. Hail		- 34
Handling Systems, G.T. Tamura	_	46	Transfer Function Method of Calculating Cooling Loads,		
Consumerism—Its Effect on Product Safety, M.W. Jensen Status of ASHRAE Standards, N.A. La Courte	2—	39 61	Heat Extraction & Space Temperature, G.P. Mitalas Treasurer's Report, W.P. Chapman		- 54 - 61
Status of ASHRAE Standards, N.A. La Courte		61	reason a Report, W.F. Chapman	12-	. 0
Steam Turbines for Pump & Fan Drives Provide 'Free'					
Stewart, J.L., Report on TC 4.5—Fenestration	11-	43			
Successful Fall Conference Held in Cincinnati	12-		U		
SYMPOSIUMS			Upgrading, S.F. Gilman	1—	- 67
Air Conditioning of Laboratory Facilities—1971 Semi-					
annual Meeting, Philadelphia, PA					
Equipment Loads in Laboratories, A.J. deAlbuquerque Electric Heating & the Environment—Today & Tomorrow	9—	59			
—1972 Semiannual Meeting, New Orleans, LA			V		
Power Crisis & Building Systems Design, The, S.J.	_		Variable Air Volume, D. Rickelton & H.P. Becker	9	31
Gage Fan Application, Testing & Selection—1970 Semiannual Meeting, San Francisco, CA	7—	25	Velocity of Sound in Two-Phase Flow of R12, R.P. Koker- nak & C.L. Feldman	2—	35
Methods of Selecting & Rating Fans, J.B. Graham	1-	46	VENTILATION		
Fluidics & Electronics in Control Systems—1971 Semi-			Computer Analysis of Smoke Control with Building Air		
annual Meeting, Philadelphia, PA Fluidic Circuits for Measurement & Control, T.J.			Handling Systems, G.T. Tamura	6-	46 56
Lechner	2—	40	Emergence of Environmental Engineering in British Uni-		
Industrial Air Conditioning—Why & How—1969 Semi- annual Meeting, Chicago, IL			versities, The, D.J. Croome	11-	
Feasibility of Industrial Air Conditioning, A.T.			Fire Hazard Characteristics of Duct Materials, E.E. Smith Fluidic Circuits for Measurement and Control, T.J.	7—	29
Spangler	10—	47	Lechner	2—	40
New Developments in High-Rise Fire Protection—1972 Semiannual Meeting, New Orleans, LA Fire Hazard Characteristics of Duct Materials, E.E.			HVAC Compartment Concept, R.T. Tamblyn Introductory Approach to the Rating of Air-Conditioning	10-	27
Smith	7—	29	Systems, A. Greenberg Methods of Selecting & Rating Fans, J.B. Graham		35 46
Total Fire Safety System, A, A.W. Innamorati Refrigeration of Seafoods—1972 Semiannual Meeting,	4	34	Technology Pacesetter: 1922—ASHRAE GUIDE AND		
New Orleans, LA			DATA BOOK—1972, J.H. Cansdale & C.W. MacPhee Thermal Comfort Studies: A Theoretical Assessment,	5—	35
Freezing Foods—The Cost of Quality, C.L. Rasmussen	11-	29	D.R. Burton	8—	39
Quality Aspects of Refrigerated & Frozen Fishery Products, R.R. Pedraja	11-	32	Variable Air Volume, D. Rickelton & H.P. Becker	9_	31
What's Next in Product Safety?—1971 Annual Meeting, Washington, DC					
Consumerism—Its Effect on Product Safety, M.W.		20			
Products Liability—Decisions & Trends, M.D. Mac	2—	39	W		
Arthur	1—	53	Walt Disney World—A Venture in Community Planning,	3—	20
			W.E. Potter	3-	14
			WEATHER		
			Computerized Energy Requirement Analysis & Heating/ Cooling Load Calculations of Buildings, M. Lokman-		
T		• •	hekim & R.H. Henninger	4-	25
'T' in ASHRAE R&T Committee, The R.F. Logsdon Tamblyn, R.T., HVAC Compartment Concept	10—		Weather Data Related to Evaporative Cooling, L.W.	4	60
Tamura, G.T., Computer Analysis of Smoke Control with		_,	Weather Data Related to Evaporative Cooling, L.W. Crow	6-	60
Building Air Handling Systems		46	Willson, P.G., Ontario Chapter Reports on Education &		
Teaching—A Personal Involvement, J.P. Olivieri	3—	59	Manpower Survey	12-	64
ASHRAE JOURNAL December 1972					99